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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/646,876	10/05/2000	Yasuharu Suda	198047US0PCT	3995

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EXAMINER

FUNK, STEPHEN R

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 07/31/2002

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/646,876

Applicant(s)

Suda

Examiner

Stephen Funk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 13, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 6-27, and 31-51 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 8-27, and 31-51 is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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The disclosure is objected to because of the following informalities: In the paragraph beginning on page 20 line 3 "VIB" should be --IVA--. In claim 6 the period after "Mo" should be a comma. In claim 51 the last line is grammatically awkward. Appropriate correction is required.

Claims 25 - 27 and 35 - 41 are objected to under 37 C.F.R. 1.75(a) as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 25 the recitation of the coat layer further containing at least one of the recited members would appear to be a double recitation of the same in claim 1. Although claim 1 recites these elements in the alternative it is not apparent that if one of these elements were positively recited in claim 1 what exactly applicant is claiming in claim 25. For example, if claim 1 positively recites Fe^{2+} does claim 25 require additional Fe^{2+} or one of the other elements. Clarification is required.

In claims 35 and 40 it cannot be accurately what would, and would not, encompass a "strong non-chemical interaction".

In claim 41 it cannot be accurately determined what structure, if any, is positively recited as there is no clear demarcation between the preamble and the body of the claim. For example, in line 2 it is not clear if the "writing apparatus" and/or the "light source" are positively recited elements of the apparatus.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 41 - 43 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakayama et al. (US 6,048,654). Nakayama et al. teach the printing plate material as recited and the method of converting and reconvertng the material between hydrophobic and hydrophilic. See the entire document of Nakayama et al. With respect to the added limitations note the Group IVA metal "Si" in column 5 lines 12 - 14 of Nakayama et al.

Claims 4, 8 - 13, 22, 23, 47, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al. With respect to claim 4 Nakayama et al. do not specifically disclose Fe or Ni being a compound oxide with titanium. See column 6 lines 10 - 16 of Nakayama et al., for example. However, it would have been obvious to one of ordinary skill in the art through routine experimentation to utilize Fe or Ni as a compound oxide with titanium in view of Nakayama et al. teaching the desirability of using oxides as the photocatalyst. With

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respect to claims 8 - 13 and 22 the specific contact angles and energy would have been obvious, if not inherent, to one of ordinary skill in the art to achieve the desirable differences in wettability. With respect to claim 23 it would have been obvious to polish clean the surface to remove any residue. It is noted that the broad recitation of cleaning as recited in claims 22 and 23 does not distinguish from cleaning the ink from the printing plate material, i.e. it is considered as a separate step from the renewing of the surface. With respect to claim 47 it is well known in the art to clean and renew printing cylinders in press.

Claims 14 - 21, 35 - 40, and 44 - 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al. in view of D'Heureuse et al. (US 6,318,264). Nakayama et al. do not disclose the recited types of reconvert processes. D'Heureuse et al. disclose either chemically and/or physically reconvert a similar printing plate material. See column 6 lines 10 - 22 and column 10 lines 9 - 24 of D'Heureuse et al., for example. It would have been obvious to one of ordinary skill in the art to reconvert the printing plate material of Nakayama et al. with any of the recited reconvert processes in view of D'Heureuse as a more cost or time efficient alternative method. It is deemed that each of the light energy, electrochemical, and combination reconvert processes would have been obvious to one of ordinary skill in the art through routine experimentation to arrive at optimum renewing of the hydrophilic nature of the printing plate material.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

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Claims 24 - 27, 31 - 34, 48, 49, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al. in view of Gelbart et al. (US 5,713,287). Nakayama et al. do not teach providing a coating layer over the coat layer. Gelbart et al. disclose the conventionality of providing a coating layer (17), comprising a photocatalyst, over a first coat layer (18), comprising a photocatalyst, so as to renew the coat layer. See Figures 2a - 2c, and corresponding portions in the specification, of Gelbart et al. It would have been obvious to one of ordinary skill in the art to provide the printing plate material of Nakayama et al. with a renewing coating layer over the coat layer in view of Gelbart et al. so as to quickly renew the printing plate material. With respect to claims 25 - 27, 31 - 34, and 48 note the photocatalyst, and the relevant above discussion, of the coat layer of Nakayama et al. With respect to claims 49 and 51 note that the cleaning and renewing of Gelbart et al. is performed in a printing machine.

Claims 1, 24 - 26, and 31 - 34 are rejected under 35 U.S.C. 102(a) as being anticipated by Kobayashi et al. (WO 99/08158). Kobayashi et al. teach the printing plate material, including the coating layer (112), as recited. See, for example, Figures 3A - 3C of Kobayashi et al. With respect to the added limitations note that the broad recitation of a Group IVA metal does not distinguish from silicon atoms in the binder. (See column 13 lines 54 - 67 of U.S. 6,294,313 - the U.S. equivalent to WO 99/08158.)

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

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Claim 41 is rejected under 35 U.S.C. 102(b) as being anticipated by Gelbart et al. Insofar as claim 41 only positively recites structure of an apparatus, Gelbart et al. teach a writing apparatus comprising a light source (14). The limitations of the plate material recited in claim 1 are not incorporated, and thus do not limit, the apparatus of claim 41.

Claims 6 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's arguments filed June 13, 2002 have been fully considered but they are not persuasive. The broad recitation of the titanium oxide photocatalyst as recited in claim 1 does not distinguish from the titanium oxide disclosed by Nakayama et al. as that titanium oxide is responsive to light in converting from hydrophobic to hydrophilic and from hydrophilic to hydrophobic. See column 6 lines 34 - 67 of Nakayama et al., for example. Secondly, both Nakayama et al. and Kobayashi et al. teach at least one member from Group IVA as discussed above. Claim 41, as broadly recited, does not distinguish from any light source.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Funk at telephone number (703) 308-0982. The examiner can normally be reached Tuesday - Friday from 7:00 am to 5:30 pm.

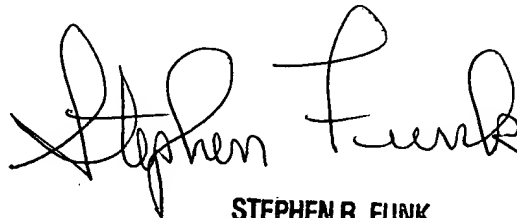
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Hirshfeld, can be reached at (703) 305-6619.

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The fax number for *official* papers is (703) 308-7722, 7724. The fax number for those wishing an auto-reply verifying receipt of *official* papers is (703) 872-9318 or for After-Final actions is (703) 872-9319. Upon consulting with the examiner *unofficial* papers only may be faxed directly to the examiner.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at telephone number (703) 308-0956.

Stephen Funk
July 30, 2002



STEPHEN R. FUNK
PRIMARY EXAMINER